

## CLAIMS

1. A method of manufacturing porous glass base material for optical fiber including that flame-hydrolyzing raw materials for glass in oxyhydrogen flame, depositing the generated glass fine particles on a rotating target to form porous glass base material, dehydrating and sintering said porous glass base material to transform into clear glass, wherein in terms of the surface temperature of said porous glass base material, which changes as the burner used for depositing glass fine particle is moved relatively to said target, the temperature difference between the surface temperature of said porous glass base material touching said burner flame  $T_a$  and the surface temperature of the porous glass base material before touching the flame  $T_b$ , that is  $T_a - T_b$ , is adjusted to be within the range from 200 to 700 degrees centigrade.

2. Glass base material for optical fiber made of the porous glass base material obtained according to claim 1, wherein said porous glass base material is dehydrated, sintered, and transformed into clear glass.